

REMARKS

The application has been reviewed in light of the Office Action dated April 16, 2004. Claims 1-15 were pending in this application. By this Amendment, new dependent claims 16-24 have been added, and claims 1-3, 7, 10 and 13 have been amended to clarify the claimed invention, with claim 7 being converted into independent form. Accordingly, claims 1-24 are now pending in this application, with claims 1-3, 7, 10 and 13 being in independent form.

Applicants maintain that no new matter has been introduced by this amendment. Support for the claim amendments and new claims can be found in the application, *inter alia*, at page 44, line 21 through page 47, line 2, and in Figs. 71 and 72.

The drawings were objected to under 37 C.F.R. 1.83(a). The Office Action states that the claim feature of "two translational and three rotational motions" must be shown in the drawings or canceled from the claims.

Applicants maintain that the claim feature of "two translational and three rotational motions" are shown in the drawings. For example, Figs. 71 and 72 show that the receptor can be (a) rotated between portrait and landscape orientations, (b) tilted between vertical and horizontal orientations of the imaging face, (c) rotated together with the column about a long column axis, (d) translated up and down the column (or along with the column) and (e) translated along with the column in a direction transverse to a long axis of the column.

Accordingly, withdrawal of the objection to the drawings is requested.

Claims 7-9 and 10-15 were rejected under 35 U.S.C. 112, first paragraph, as purportedly failing to comply with the enablement

requirement.

The claims have been amended to clarify the claimed invention. More specifically, the claims have been amended to clarify that the receptor moves in at least two translational and three rotational motions, including up and down, about an up-down axis, and about a lateral axis transverse to the up-down axis.

Accordingly, withdrawal of the rejection under 35 U.S.C. 112, first paragraph is requested.

Claims 1, 4 and 5 were rejected under 35 U.S.C. §103(a) as purportedly unpatentable over U.S. Patent No. 6,200,024 to Negrelli in view of U.S. Patent No. 6,309,102 to Stenfors. Claim 6 was rejected under 35 U.S.C. §103(a) as allegedly unpatentable over Negrelli in view of Stenfors and further in view of U.S. Patent No. 5,226,069 to Narita. Claims 2 and 3 were rejected under 35 U.S.C. §103(a) as purportedly unpatentable over U.S. Patent No. 4,501,011 to Hauck et al. in view of U.S. Patent No. 6,041,097 to Roos et al.

Applicants have carefully considered the Examiner's comments and the cited art, and respectfully submits that amended independent claims 1-3 are patentable over the cited art, for at least the following reasons.

This application relates to systems for positioning a digital flat panel x-ray receptor for various diagnostic x-ray protocols for imaging various parts of the body. Digital x-ray sensors are a preferred x-ray recording medium. Conventional systems typically have multiple digital flat panel detectors pre-mounted in the system to allow sensors to be available for each of the standard imaging protocols. However, cost presents an obstacle for an imaging system when multiple digital flat panel detectors are used.

Applicants devised a system for positioning a digital flat panel x-ray receptor to allow for a variety of diagnostic x-ray protocols to be performed. The system allows the receptor to be moved in at least two translational and three rotational motions. This feature is described in each of independent claims 1-3.

None of the cited references discloses or suggest the claimed invention.

Negrelli, as understood by Applicants, is directed to a robotic support system, as a substitute for a C-arm support, for a radiographic imaging apparatus. The support system includes positioning systems for positioning an x-ray source and an x-ray detector, respectively, relative to an examination region.

Stenfors, as understood by Applicants, is directed to a C-arm type x-ray examination positioner. The C-arm apparatus of Stenfors is cited by the Office Action as purportedly supporting the capability of scanning of a patient laterally.

Narita was cited in the Office Action, in connection with claim 6, as purportedly disclosing a computer which utilizes information from encoders to control motors.

Hauck, as understood by Applicants, is directed to an apparatus for coupling independently suspended x-ray source and detector for lateral fluoroscopic studies, such as angiography.

Roos, as understood by Applicants, is directed to a fluoroscopic diagnostic imaging device which includes a gantry for supporting an x-ray tube and a flat plate x-ray detector. According to the Office Action, Roos is merely cited for its disclosure of a digital flat panel.

Applicants find no teaching or suggestion in the cited art,

however, of a system positioning a digital flat panel x-ray receptor for a variety of diagnostic x-ray protocols, wherein the receptor can be moved in at least two translational and three rotational motions.

Accordingly, for at least the above-stated reasons, Applicants respectfully submit that independent claims 1-3, and the claims depending therefrom, are patentable over the cited art.


If a petition for an extension of time is required to make this response timely, this paper should be considered to be such a petition, and the Commissioner is authorized to charge the requisite fees to our Deposit Account No. 03-3125.

The Office is hereby authorized to charge the additional claims fees and any additional fees that may be required in connection with this response, and to credit any overpayment, to our Deposit Account No. 03-3125.

If a telephone interview could advance the prosecution of this application, the Examiner is respectfully requested to call the undersigned attorney.

Allowance of this application is respectfully requested.

Respectfully submitted,

  
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